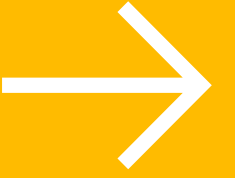
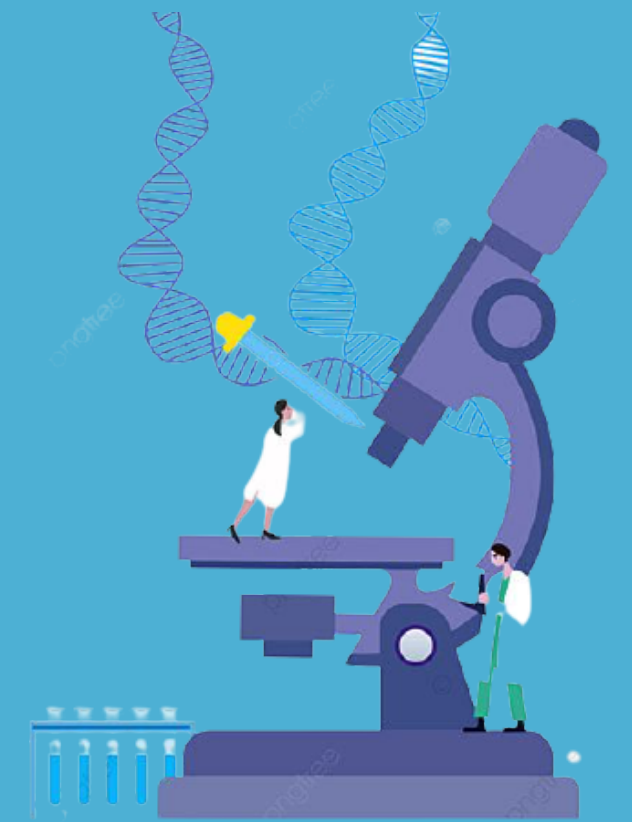
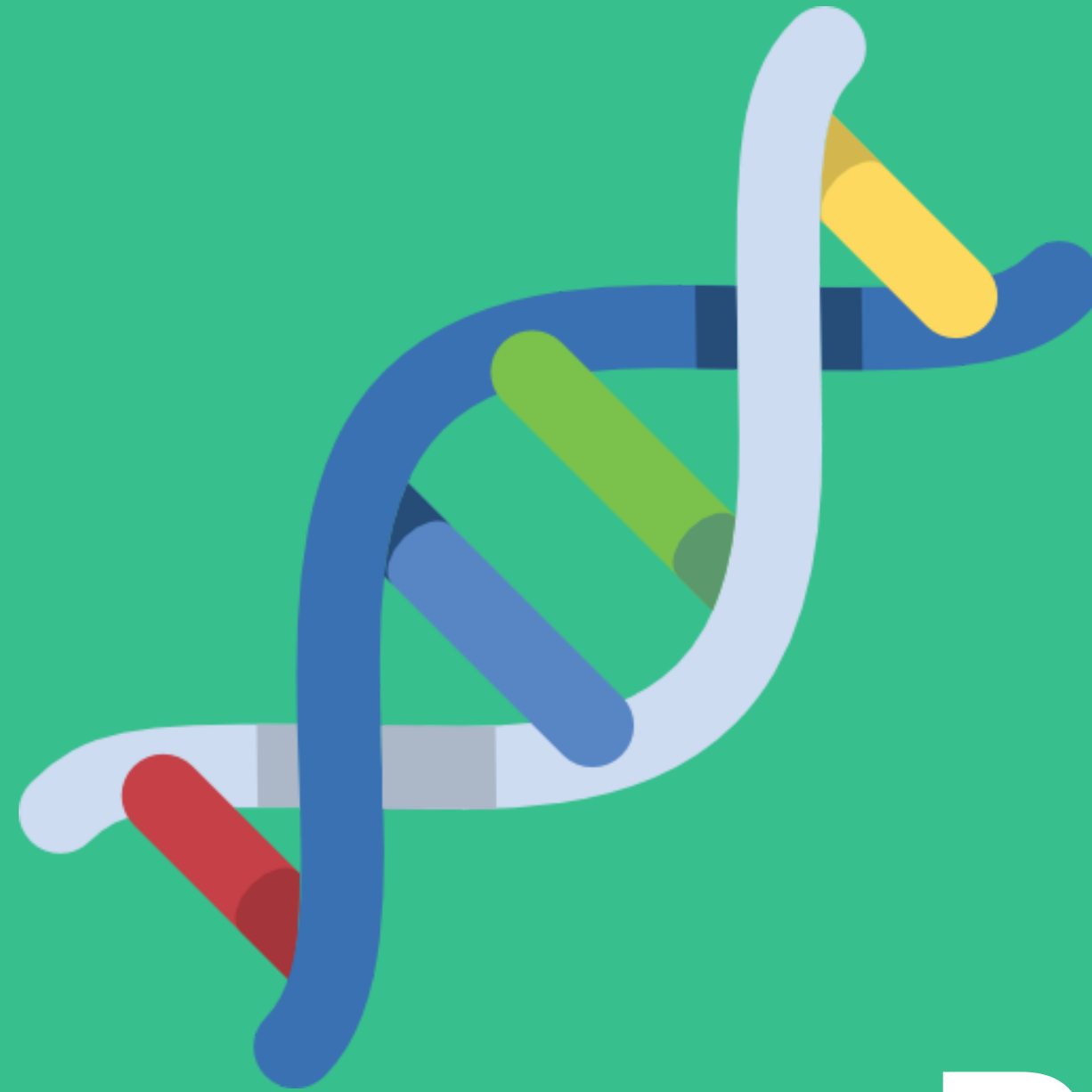


GROUP 2



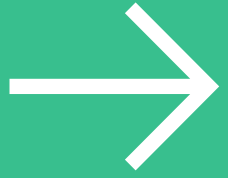
# CLASSIFICATION



# PROJECT 2

VARIANT





# Member Group



**NOOR HANNANI SYAMIMI BINTI  
MOHD SUFFIAN**  
A21EC0104



**AIN BATRISYIA BINTI NORAZLAN**  
A21EC0009



**LEE RONG XIAN**  
A21EC0043



**MUHAMMAD AKMAL BIN SHAMSUL  
HAMIDI**  
A21EC0057



**SITI NURKAMILAH BINTI SAIFUL  
BAHARI**  
A21EC0131

# Introduction



Our project will be focused on the Fourth Industrial Revolution technology, which is machine learning

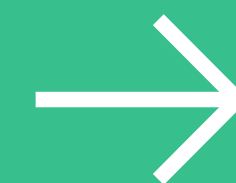
The machine learning that we choose is tertiary analysis.

Tertiary analysis in bioinformatics refers to the application of advanced computer to analyze sequencing results retrieved from raw genetic data.

AWS speeds up the study of enormous genomics data by combining machine learning and supercomputing

This project provides a model that can predict whether a variant has conflicting classifications

# Problem



Create a machine-learning model based on tertiary analysis to predict if a variant has a conflicting classification.

Researchers take too much time looking for the conflict in the classification of the genomic variant.

Determine whether a DNA variant causes disease

## DEMAND:

- Utilize tertiary analysis to classify variants
- High performance in multiple genes and different health conditions.



**Solution**

Develop a low fidelity  
machine learning  
prototype

Use Amazon Web  
Service (AWS)

Use the services  
provided by AWS



Predict the existence  
of a conflicting  
categorisation for a  
variant

AWS gives many  
benefits to run  
genomics analysis

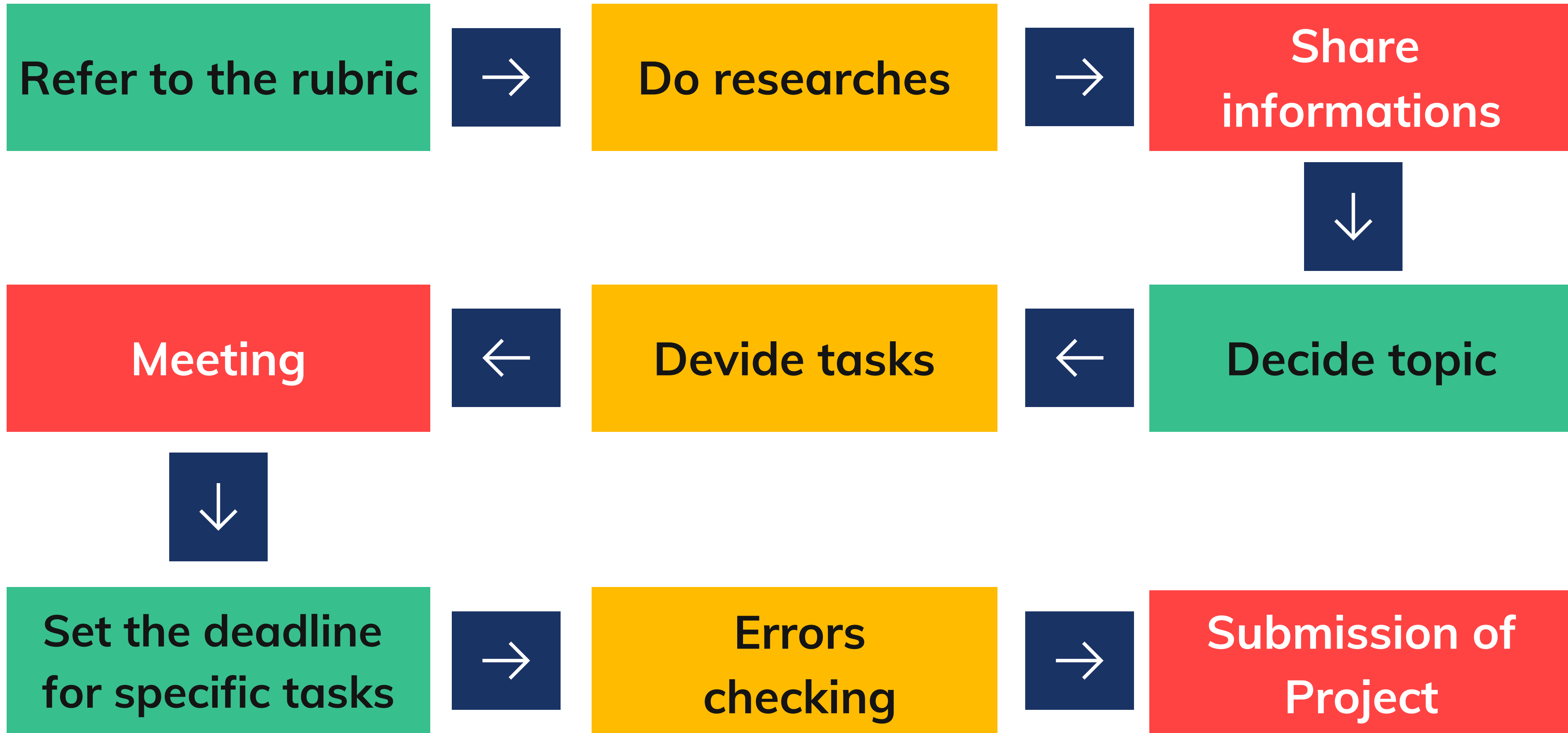
# Team Working

-gathering ideas-





# Discussion mediums: Whatsapp & Google Meet



# Share informations

Nani



Vetted Technology | AWS Solutions Library  
aws.amazon.com

<https://aws.amazon.com/solutions/>

## AstraZeneca Case Study

Using AWS, biopharmaceutical company AstraZeneca built a cloud-based, efficient, scalable solution that processes genomics sequencing data quickly.

aws.amazon.com

[https://aws.amazon.com/solutions/case-studies/astrazeneca/?  
did=cr\\_card&trk=cr\\_card](https://aws.amazon.com/solutions/case-studies/astrazeneca/?did=cr_card&trk=cr_card)

2:09 PM ✓✓

Nani



Vetted Technology | AWS Solutions Library  
aws.amazon.com

<https://aws.amazon.com/solutions/>

2:02 PM



Genomics Tertiary Analysis and Machine Learning Using Amazon SageMaker | Implementations | AWS Solutions  
Create a platform in the AWS Cloud to build machine learning models on  
aws.amazon.com

[https://aws.amazon.com/solutions/implementations/genomics-tertiary-  
analysis-and-machine-learning-using-amazon-sagemaker/](https://aws.amazon.com/solutions/implementations/genomics-tertiary-analysis-and-machine-learning-using-amazon-sagemaker/)

10:41 PM ✓✓

UTM-Kamilah

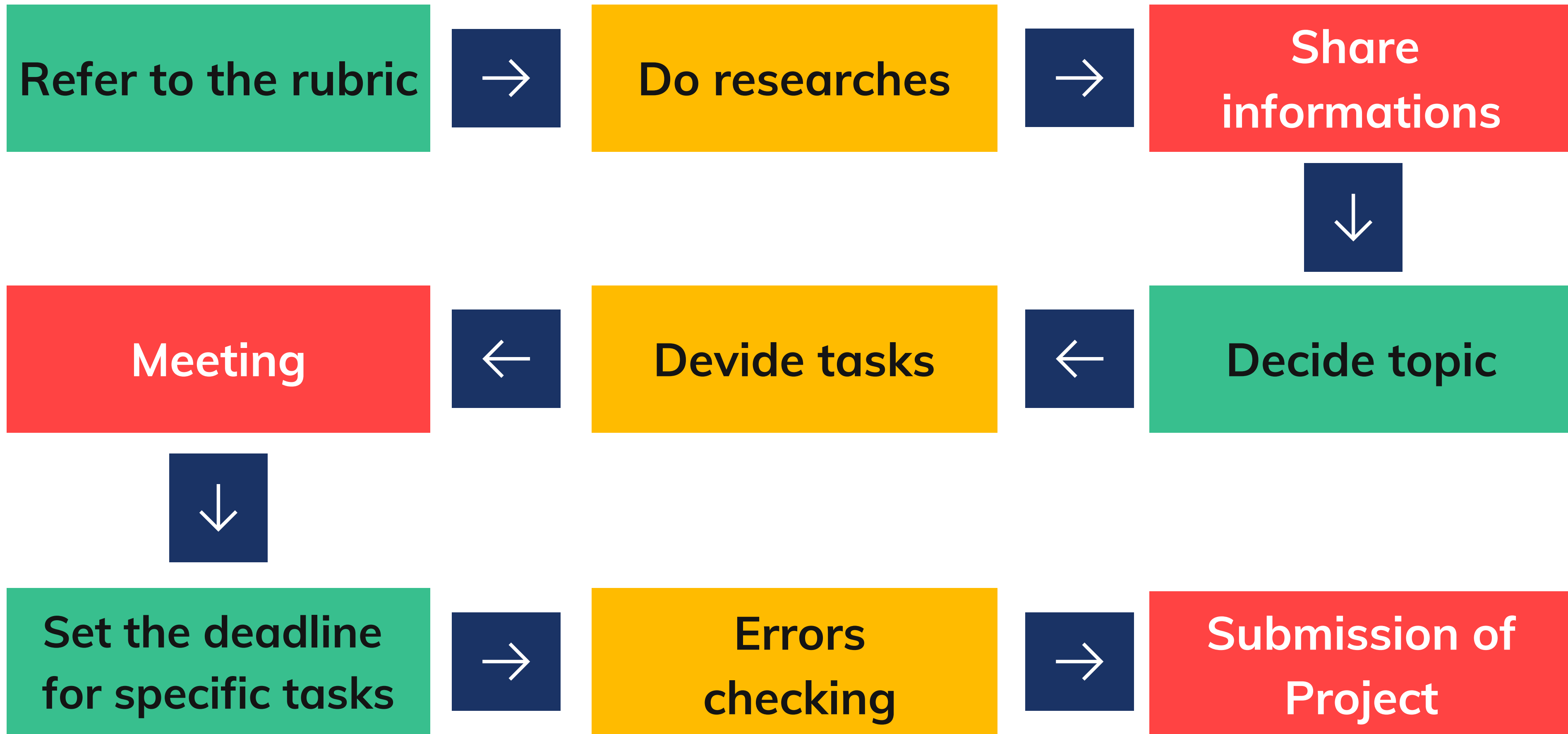


Genomics in the Cloud | Healthcare & Life Sciences | Amazon Web Services  
AWS enables genomic organizations to stay agile, scale their business,  
aws.amazon.com

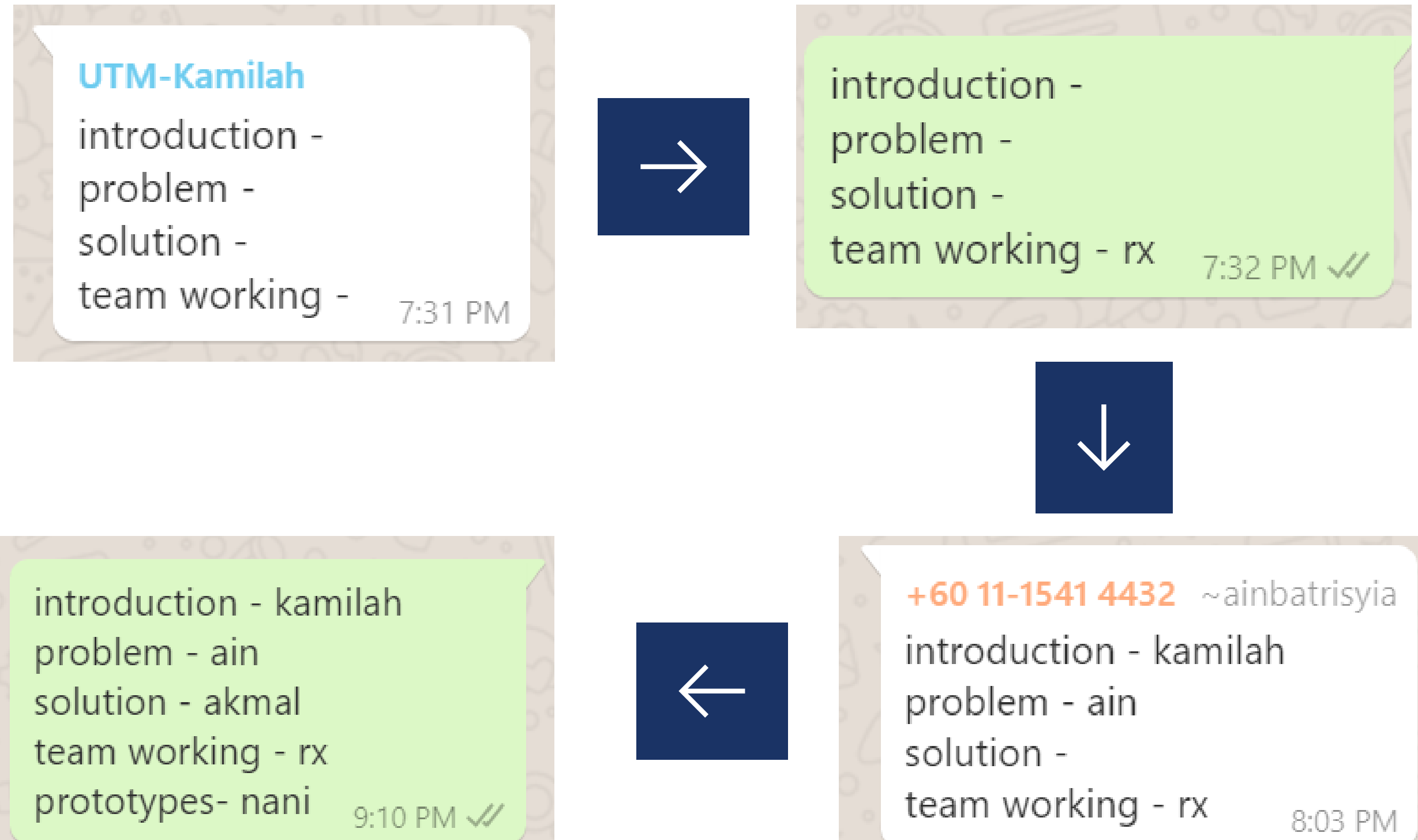
<https://aws.amazon.com/health/genomics/>

2:06 PM

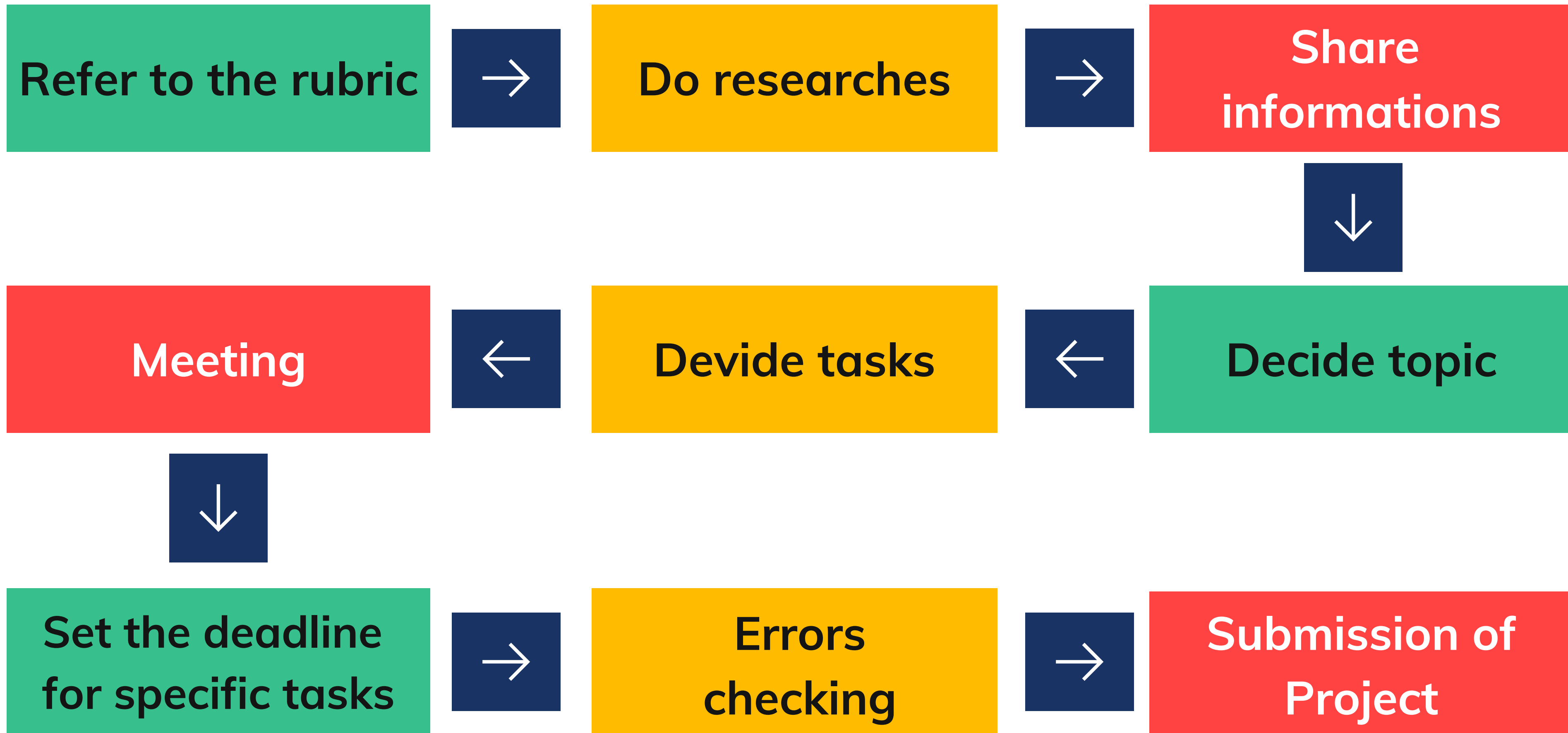
# Discussion mediums: Whatsapp & Google Meet



# Divide tasks



# Discussion mediums: Whatsapp & Google Meet

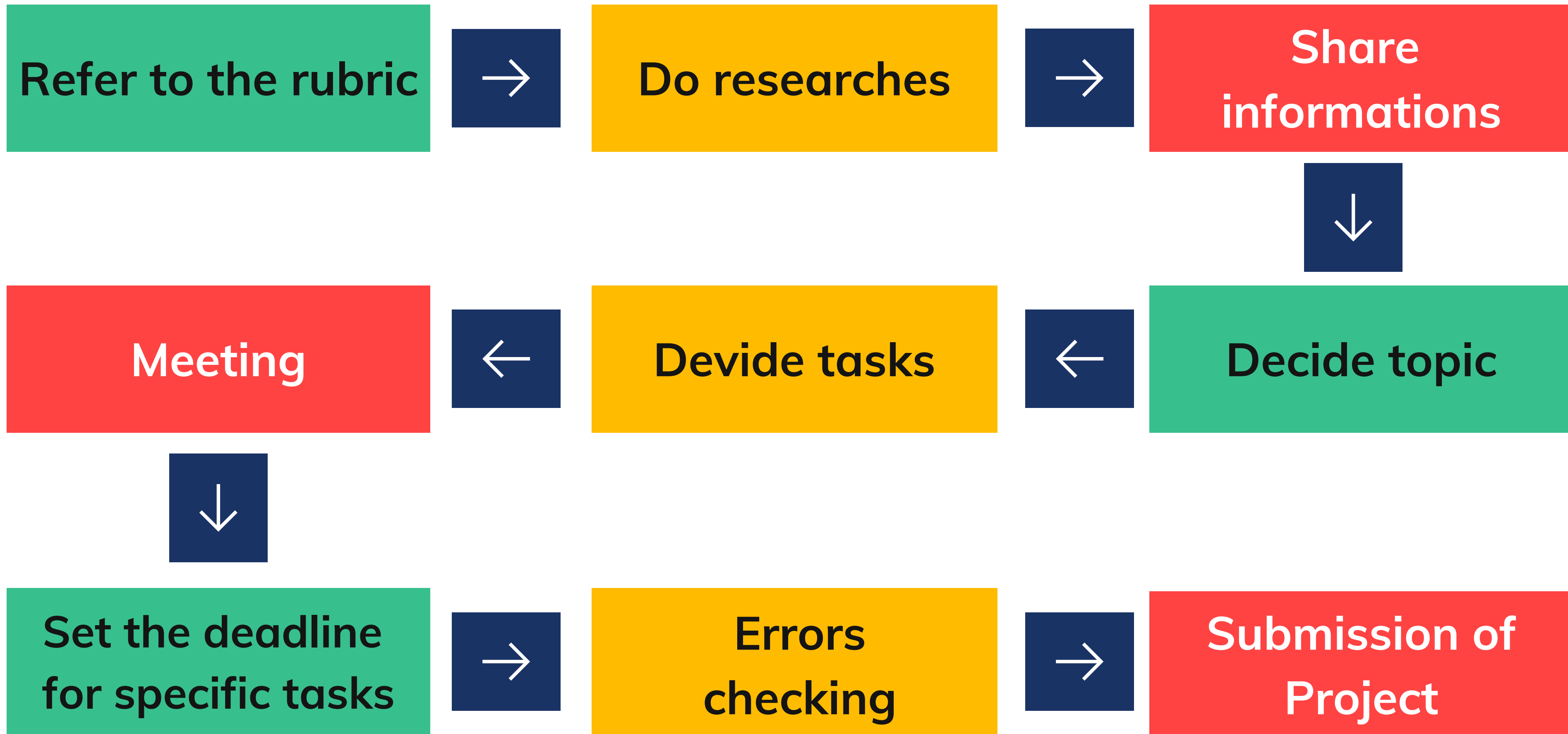


# Meeting

The screenshot displays a Zoom meeting interface. At the top, a dark banner indicates that "NOOR HANNANI SYAMIMI BINTI MOHD SUFFIAN A21EC0104 is presenting". The main window shows a presentation titled "Variant Classification" with a grid of ten thumbnail images representing different slides. The thumbnails are arranged in two rows of five. The first row includes thumbnails for a "Welcoming Page", "Main page", "Variant Classification", "Search Page Bar menu", and "Report 1". The second row shows more detailed views of the "Search" and "Report" sections. Each thumbnail has a timestamp "Updated 21st Jan @ 03:59 AM" or similar. To the right of the presentation is a gallery of participant video feeds. It includes feeds for "NOOR HANNANI SY...", "LEE RONG XIAN A2...", "Ain Norazlan", and "Akmal Midi". At the bottom of the gallery is a larger feed labeled "You" showing the presenter. The bottom of the screen features a dark bar with a timestamp "10:12 AM | oam-czuc-wrm" and a row of icons for microphone, video, chat, and other meeting controls.

-To make sure everyone understands and clear what they are doing

# Discussion mediums: Whatsapp & Google Meet

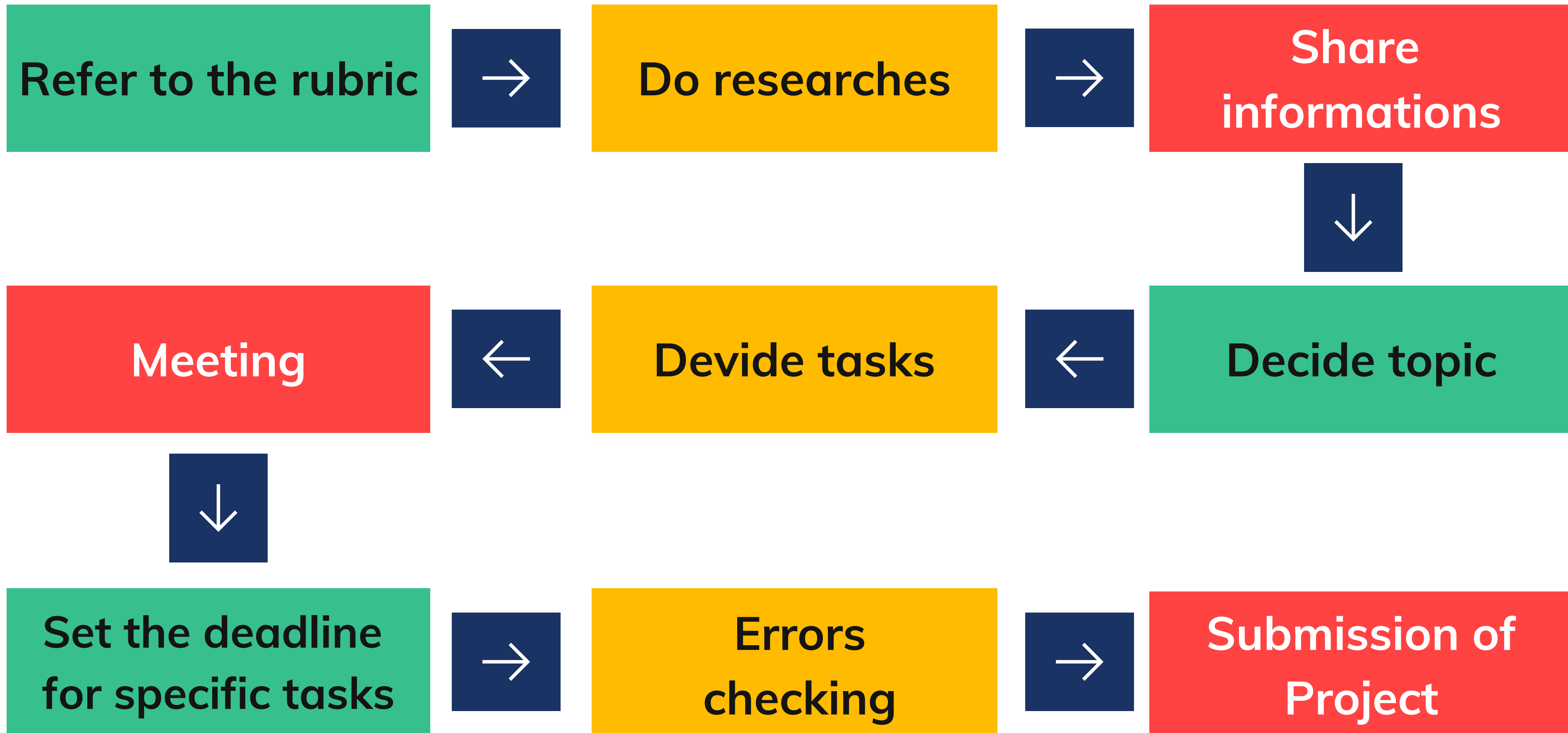


## Set the deadline for specific tasks

2. Detail steps and descriptions related to the project e.g use the video, image, and log journal, team progress, brainstorm idea, and others.  
-submit by Thursday before 9.30pm (rongxian)
3. Detailed descriptions include problem, solution, and team working.  
-submit by Thursday before 9.30pm (Ain)
4. This project must have a business process flow diagram and description.  
- submit by Thursday before 9.30pm(Akmal)
5. Provides low-fidelity mock-ups.  
-submit by Wednesday before 11pm (Hannani)
6. Video  
-submit by Saturday before 2pm  
(kamilah)



# Discussion mediums: Whatsapp & Google Meet

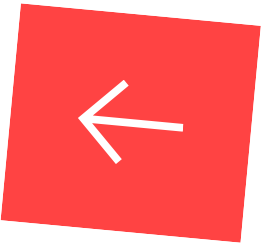
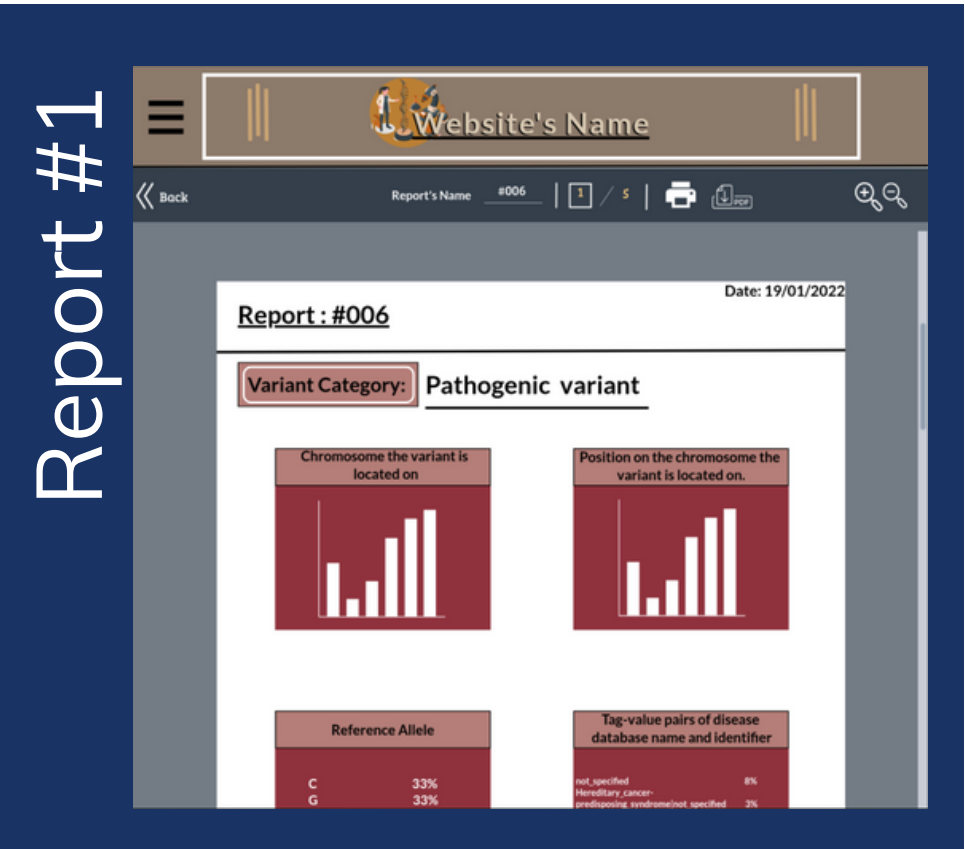
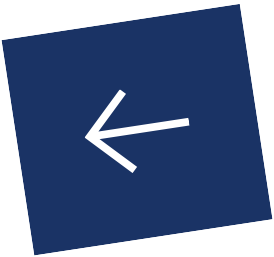
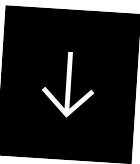
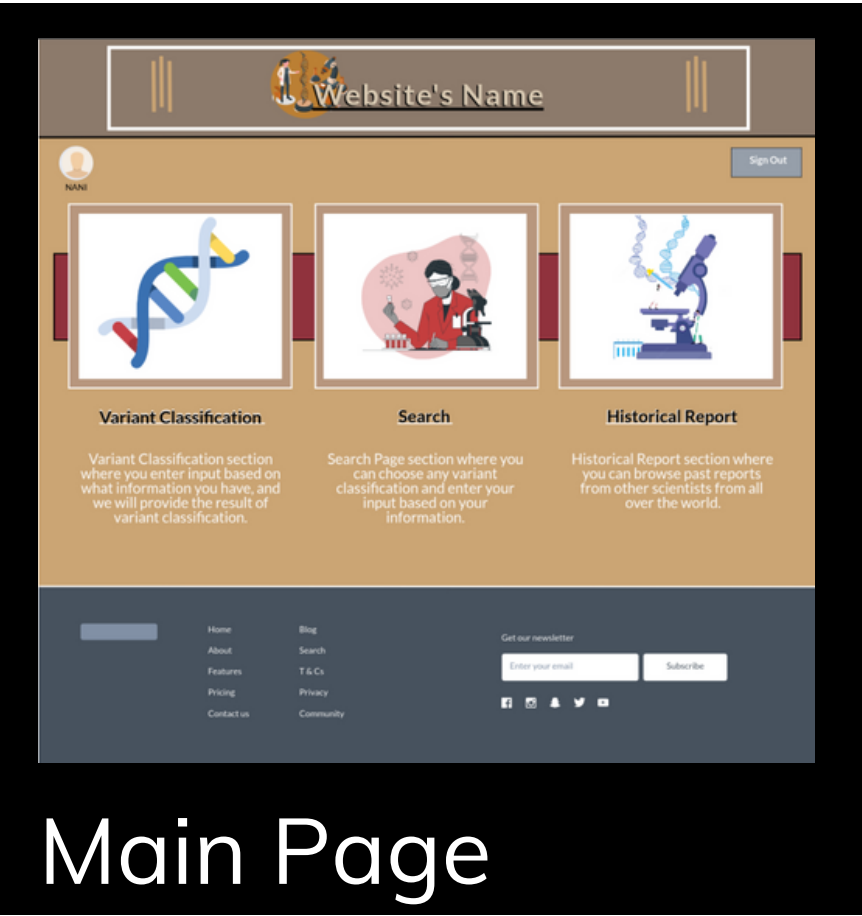
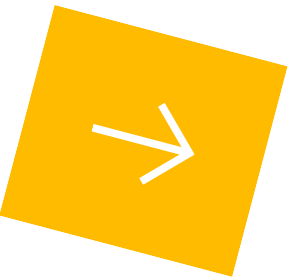


# LOW FIDELITY MOCK-UP

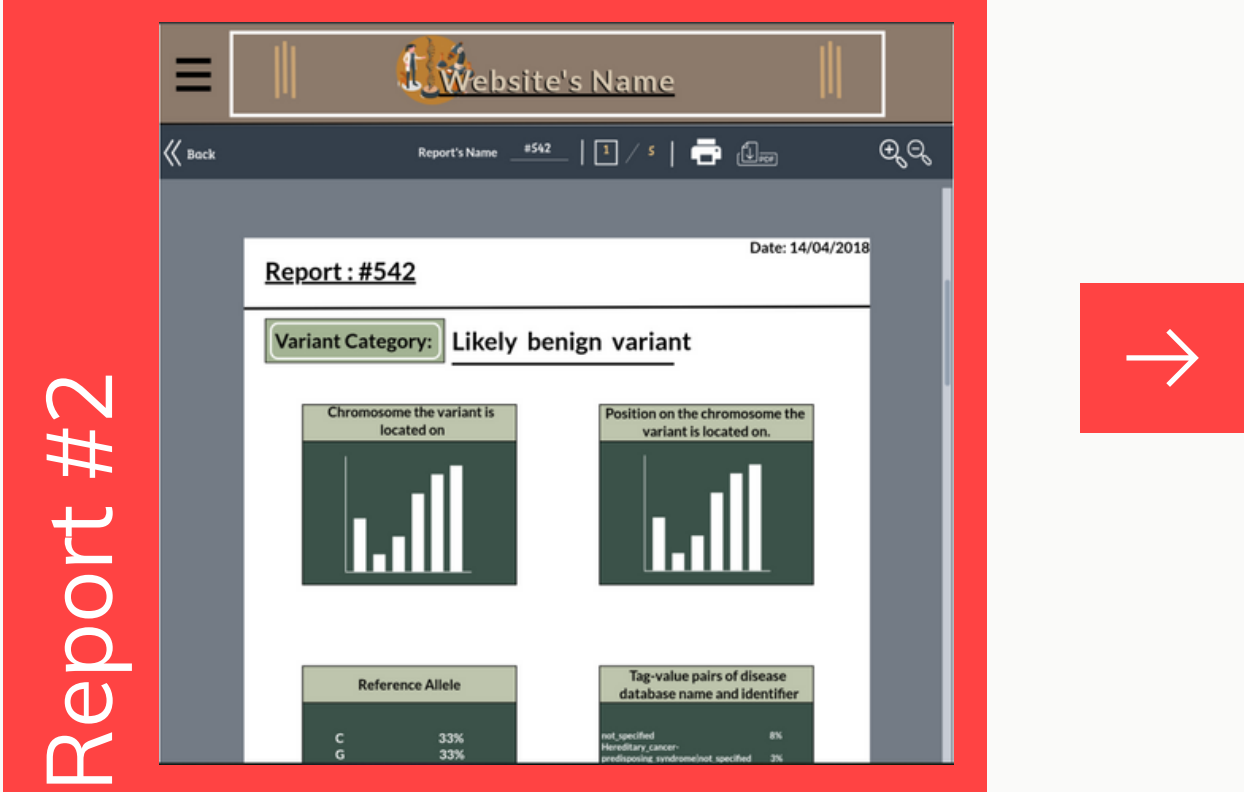


# Low Fidelity Mock-Up

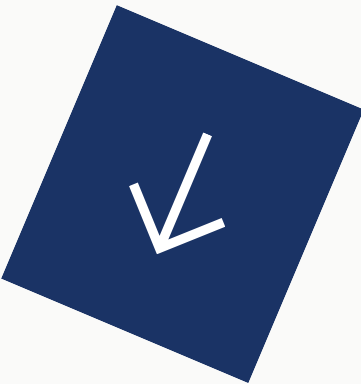
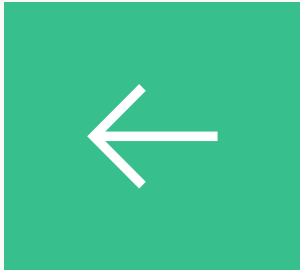
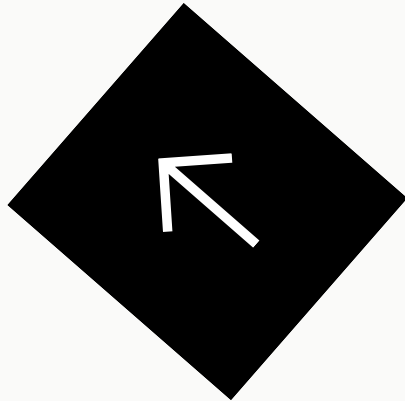
Continue Next slide



Continue Here



End





*Thank  
you!*